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AUTHOR Goetze, Herbert; Heinz, Neukater
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ABSTRACT

A structured, student-centered approach to teaching hyperactive, emotionally disturbed children involves a contingency between instructional activities and play-time that is gradually faded out. During the instructional phase, behavior modification techniques are applied to shift students' behavior from external to internal control. Therapeutic interventions are gradually introduced into the free play settings. (Some empirical data relating to the approach are presented.) (Author/SBH)

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Herbert Goetze

Heinz Neukäter

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
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A structured, student-centered approach for teaching hyperactive, emotionally disturbed children

Summary

Critical evaluations of empirically based educational strategies for teaching hyperactive, emotionally disturbed children reveal deficits in concept formulation, explanation of constructs, and empirical validation (Neukäter & Goetze, 1978)

This structured-student-centered approach combines the concepts and methodologies of Strauss, Cruickshank and Hewett with ideas of self-theory.

There will be a contingency between instructional activities and play-time that will be faded out gradually. During the instructional phase behavior modification techniques will be applied to shift students' behavior from external to internal control. Therapeutic interventions will gradually introduced into the free play settings.

Some empirical data are presented.

Herbert Goetze, Director
Dipl. - Psychologist
Pädagogische Hochschule Ruhr
Kreuzstrasse 155, Postfach 380
46 Dortmund 1
WEST GERMANY

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A structured, student-centered approach for teaching
hyperactive, emotionally disturbed children

1. Problem

There are several empirically based educational strategies for teaching hyperactive, emotionally disturbed children:

- Cruickshank et al. (1961) extend the positions of Werner, Strauss and Lethinen by stressing special educational strategies. These strategies consist of a 'non stimulating classroom environment', specially prepared teaching materials, and highly structured teaching methods (p.25).
- Hewett (1968) proposed an integrated model based on a developmental strategy. His developmental sequence of educational goals is ordered in a hierarchy ranging from attention, response, order, exploratory, social to mastery and achievement. Students are given individual tasks appropriate to their functioning level. As opposed to Cruickshank this structure consists of activity centers with stimulating displays, specified tasks and a reward system.

Critical evaluations of Cruickshank's and Hewett's concepts reveal deficits in concept formulation, and empirical validation (Neukäter & Goetze, 1978).

Cruickshank's approach is derived from a medical model and neglects social learning aspects. There are no theoretically based assumptions as to how students can be taught to organize their learning for themselves. The results of Cruickshank's study do not support his assumptions regarding the effectiveness of his method. Cruickshank himself summarizes: "When the data are examined, however, it is not possible to say with certainty that the specialized

methodology caused the growth" (p. 374).

Hewett's developmental sequence is not theoretically and empirically evidenced and is assumed to be one-dimensional, though educational goals are supported to be multidimensional. Students' behavior is believed to function on one level at a time (e.g. attention ... order ... achievement), though situational and social conditions are believed to have strongest impact on learning behavior (Bandura, 1969). A further aspect of Hewett's program is the teacher controlled token system, which lacks of a methodology toward initiating self-directed learning.

Regarding future special education it is necessary to extend the positions of Cruickshank and Hewett toward a structured, student-centered approach. This approach consists of a more comprehensive model which tries to integrate behavioral and social-emotional components. As hyperactive, emotionally disturbed children are said to be malfunctioning in many different ways, our educational model aims to support students' behavioral and social-emotional development.

The structured, student-centered approach combines the concepts and methodologies of Strauss, Lethinen, Kephart, Cruickshank and Hewett with ideas of self-theory. The educational goal of this model is to help students to function as human beings with less external and more internal control. This aim is faded in gradually.

The first step of the structured, student-centered approach is to form a contingency between instructional phase and play activities, because it is necessary to establish basic learning skills and to define the learning environment for the students. Play activities are chosen as reinforcers, because they are believed to initiate adequate emotional growth.

After having established a learning base in the cognitive domain, the contingency will be faded out and instructional phases and play activities will be continued separately. During instructional activities behavior modification techniques will be applied to shift students' behavior from external to internal control, e.g. the scheduled token system will gradually be replaced by self-contracting (Homme, 1969).

In contrast to the beginning of the program, when there are offerings presented by the teacher to encourage social play activities, now play sessions shift to a more unstructured, non-directive treatment; gradually the teacher (and his assistant) try to introduce person-centered interventions for helping students to find more self-congruence (Rogers, 1951).

The structured, student-centered approach is terminated by an integration of cognitive, and social-emotional activities; instructional phases and social emotional activities will be combined, so that a unitary self-directed learning will be established on all levels of human functioning .

The problem of the following study is to describe the effects of the implanted structured, student-centered approach.

2. Method

Design

The teaching procedure was explored under three conditions. Baseline condition (b) lasted for two months, while students' behavior was observed under already existing teaching procedures. The first structured condition (s_1) lasted for three months and consisted of the first step of the described structured, student-centered approach. Structured materials, a new classroom environment and a reward token system were introduced. Individualized work assignments were planned

to be the discriminative stimuli to the students. The second structured condition (s_2) was a non-contingent learning period (3 months). Instructional and play activities were pursued without being dependent on each other.

Procedure

The classroom was divided in two centers: one study center and a playroom. On each students' desk (each student had a desk for himself) was fixed a work record sheet on which the earned check marks for on-task behavior, in a three minute period, could be recorded. Each instructional phase (language and arithmetic) would be recorded for 30 minutes and was followed by 30 minute period of social activities. So a student could earn 10 tokens plus two tokens for beginning the work and two extra tokens for special motivation in each instructional phase. If a student got 20 check marks, he was allowed to take part in contingent social activities, if not, he had to study until he earned the required tokens. The contingent social activities consisted of a variety of structured and some unstructured games. At the beginning of the program students could choose between individual play materials; later on social activities were introduced by assistant-teachers.

In each classroom at any one time there were a teacher, an assistant-teacher and two observers. The assistant-teacher helped the teacher to distribute the materials and the tokens, to prompt appropriate behavior, and to answer students' questions. The observers were located on one side of the classroom to register the students' behavior.

Tasks were printed on work sheets. One work sheet presented a task, the following sheet the answer and a verbal/non-verbal reinforcer. After solving the presented problem, each student could compare his solution with the proposed one and turn to the next task. The problems themselves were presented in a clear and structured manner (see Cruickshank et al., 1961).

Observation measures

Students' behavior was categorized in two classes:

- distraction
- on-task behavior

Distraction was categorized as reaction to environmental, non-task orientated stimulation (e.g. looking around at other students, or other incidents unconnected with the learning situation, listening to stimuli not introduced by the teacher).

On-task behavior was defined as looking at the teacher or the work materials, writing and drawing, counting, asking and answering questions etc.

An observation period for each child consisted of 10 intervals, each lasting 15 seconds. The observation/record interval was on a ten/five second base (observation/record). The students were randomly observed.

Subjekts

Subjects were selected from a psychiatric hospital which served children with brain damages. The associated school consisted of seven classes. Nine students with an age range from 12-15 were included in this study. IQs of the students ranged from 80-120 except one student with IQ of 67. Test data of psychopathological evaluations (Benton test, Göttinger Form Reproduction Test, Diagnostic test for cerebral damages) confirmed the assumption of minimal brain damage.

3. Results

Interobserver assessment was conducted several times during the project. The overall percentage ranged from 80% to 100% with a median of 88%.

Fig. 1 presents percentages of on-task behavior under three experimental conditions (baseline, structure 1, structure 2)

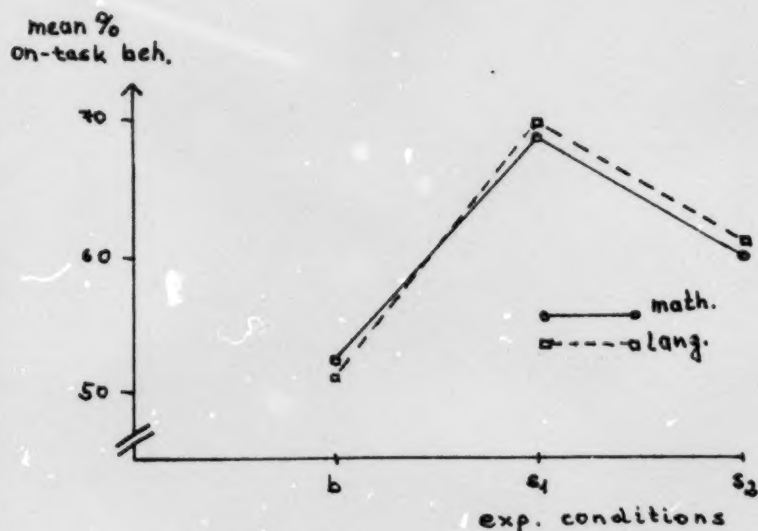


Fig. 1

Mean on-task behavior in % during 3 experimental conditions in language and mathematics

Students' on-task behavior in language and arithmetic increased from near 50% of the time during baseline phase to about 70% of time during structured learning condition 1. The rates of on-task behavior decreased from 70% to about 60% of time under structure 2. A two factor repeated measures analysis of variance was computed. No significant differences were found between language and arithmetic, whereas the structure-conditions differed significantly. We can conclude from data, that during the structured condition 1 on-task behavior was heavily influenced by structured materials, a token-reinforcement system and contingent play activities. During the non-contingent learning period on-task behavior did not increase as much as under structure 1 condition.

Fig. 2 presents data of distraction under three conditions of the project. Distractibility continually decreased from about 30% in baseline to less than 10% of time in structure 2.

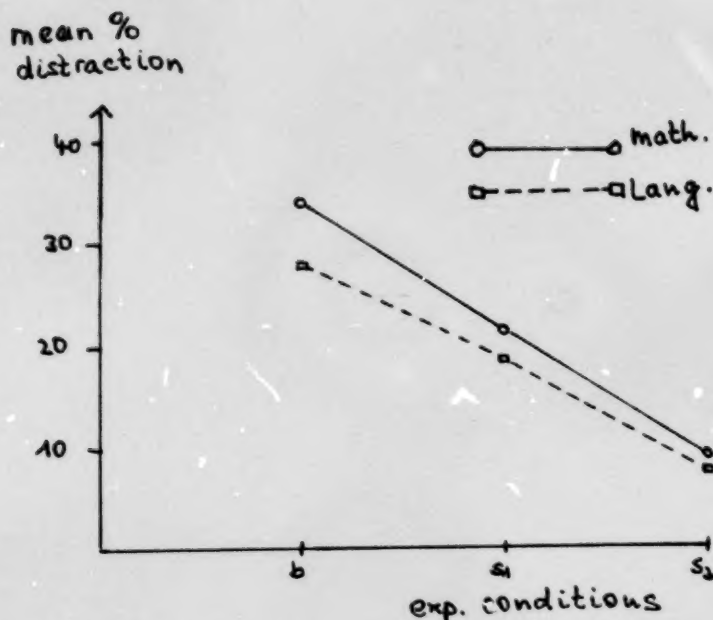


Fig. 2

Mean percent distraction during experimental conditions in language and mathematics

Analysis of variance reveals that only structure conditions proved to be significantly different ($p < .01$).

We can conclude, that both conditions of structure have changed distractibility.

4. Discussion

This study intended to realize the first steps of the structured, student-centered approach with hyperactive, emotionally disturbed children. From data we can conclude, that the first step of our approach was effectively conducted. Apparently we succeeded in establishing a learning base for the student. Probably, structure condition 2 was not faded in gradually, as our model requires, but in a too sudden way.

Summarizing we can say, that only the very first step of the structured, student-centered approach was investigated. These first results encouraged the authors to look for more validating data in the cognitive and social-emotional domains.

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Dr. Herbert Goetze
Wiss. Ass.
PH Ruhr, Fb II
Kreuzstr. 155
4600 Dortmund
W.-Germany

Dr. Heinz Neukäter
Akad. Rat
PH Ruhr, Fb II
Kreuzstr. 155
4600 Dortmund
W.-Germany